

DSm415/p/f/pf

Product Information Guide



Contents

PRODUCT OVERVIEW	3
TARGET & VOLUMES	4
SCAN TO E-MAIL	6
NETWORK TWAIN	8
SCANROUTER V2 LITE AND DESKTOPBINDER V2 LITE	8
HIGH PRODUCTIVITY	9
FAX FEATURES	10
HIGH SPEED	10
OTHER CONVENIENT FEATURES	10
LAN-FAX	11
INTERNET FAX	12
PRINTER FEATURES	13
VERSATILE NETWORK CONNECTIVITY	14
RPCS DRIVER	14
WEB IMAGE MONITOR	15
SMARTDEVICEMONITOR	16
CONFIGURATION AND OPTION INTERCHANGEABILITY	17
INTERNAL OPTIONS	18
OPTION/SUPPLY INTERCHANGEABILITY	18
MEMORY CONFIGURATION	19
FAX MODEL	19
MFP (<i>EXPANDED TO PRINTER, SCANNER, OR FAX FEATURE</i>)	19
MAIN UNIT SPECIFICATION	20
ENGINE	20
GENERAL FEATURE	21
ENHANCED FEATURE	22
FAX FEATURES	23
GENERAL FEATURE	23
TRANSMISSION FEATURES	24
RECEPTION FEATURES	25
TELEPHONE FEATURES	25
LAN-FAX BASIC SPECIFICATIONS	26
INTERNET FAX (T.37 FULL MODE) BASIC SPECIFICATION	26
GENERAL FEATURES OF PRINTER CONTROLLER	27
CONTROLLER OPTIONS	28
SUPPORTED ENVIRONMENTS	29
CONFIGURATION OF PRINTER AND SCANNER RELATED ITEMS	31
USB2.0 INTERFACE (STANDARD)	32
WIRELESS LAN INTERFACE (OPTION) ...IEEE802.11B	33
IEEE 1394 INTERFACE (OPTION)	34
BLUETOOTH INTERFACE (OPTION)	35
SCANNER FEATURES	36
SCAN TO E-MAIL SPECIFICATION	36
SCANROUTER V2 LITE AND DESKTOPBINDER V2 LITE	37
NETWORK TWAIN DRIVER	38
AUTO DOCUMENT FEEDER	39
SUPPLY SPECIFICATION	39
ENVIRONMENTAL SPECIFICATION	40

Product Overview

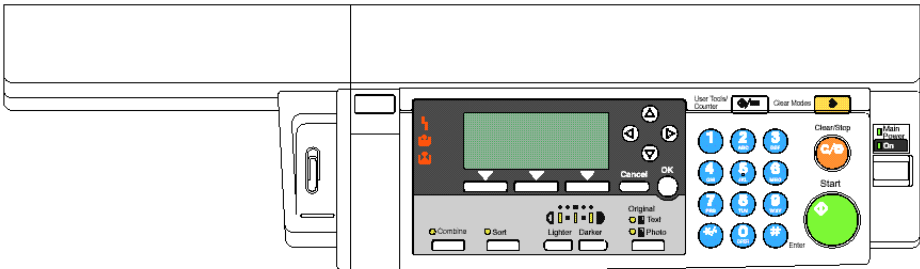
DSm415pf with optional 1 tray paper bank



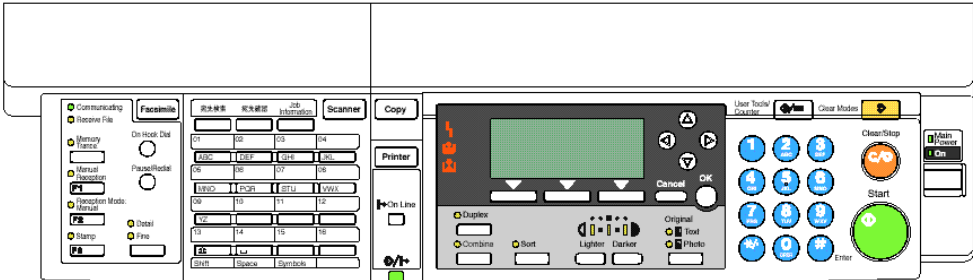
Operation Panel

Simple designed operation panel; 4-line, 27-digit display for easy operation with 4 direction cursor keys

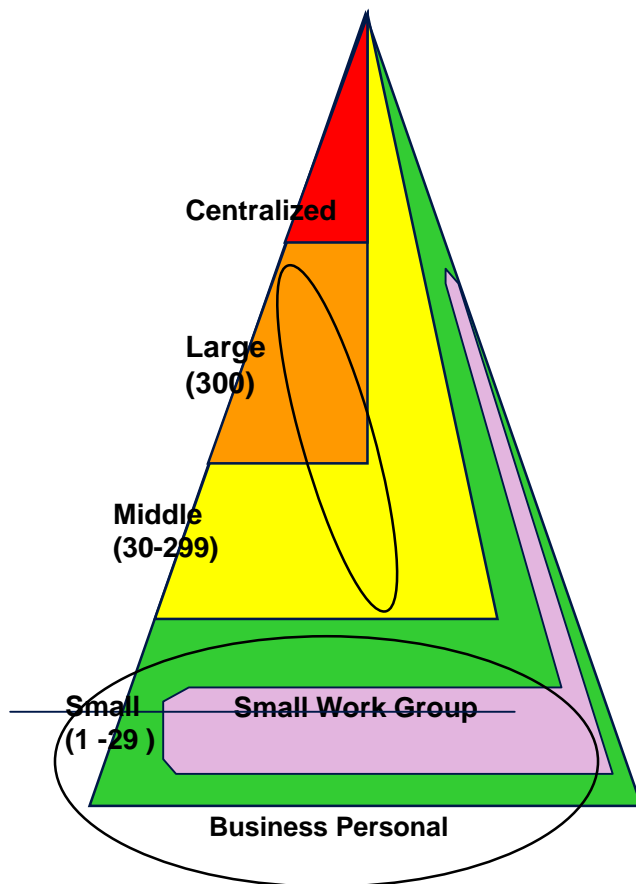
Basic Model



Copier, Fax, Printer and scanner



Target User Classification and Reliability



Main Target is small workgroup;

**Average print/copy volume: 2k/month
Max print/copy volume: 5k/month**

Small office users (1-4 people) or business personal machines

Replace the 12 – 15cpm analog copier and 1st generation digital copier by offering the following features:

- Compact size
- 4-line LCD offers easy operation
- Quick warm-up (10 seconds for basic copier recovery time)
- Scan to E-mail feature
- Duplex capability

Mid to large offices as a work group fax or division printer or scanner

Scanner features are available on printer option (Scanner & Printer option). Replace stand-alone fax machines. Install Printer & Scanner option to acquire print volume. All-in-one (copier, fax, printer and scanner) multi-function product to be used in mid to large offices

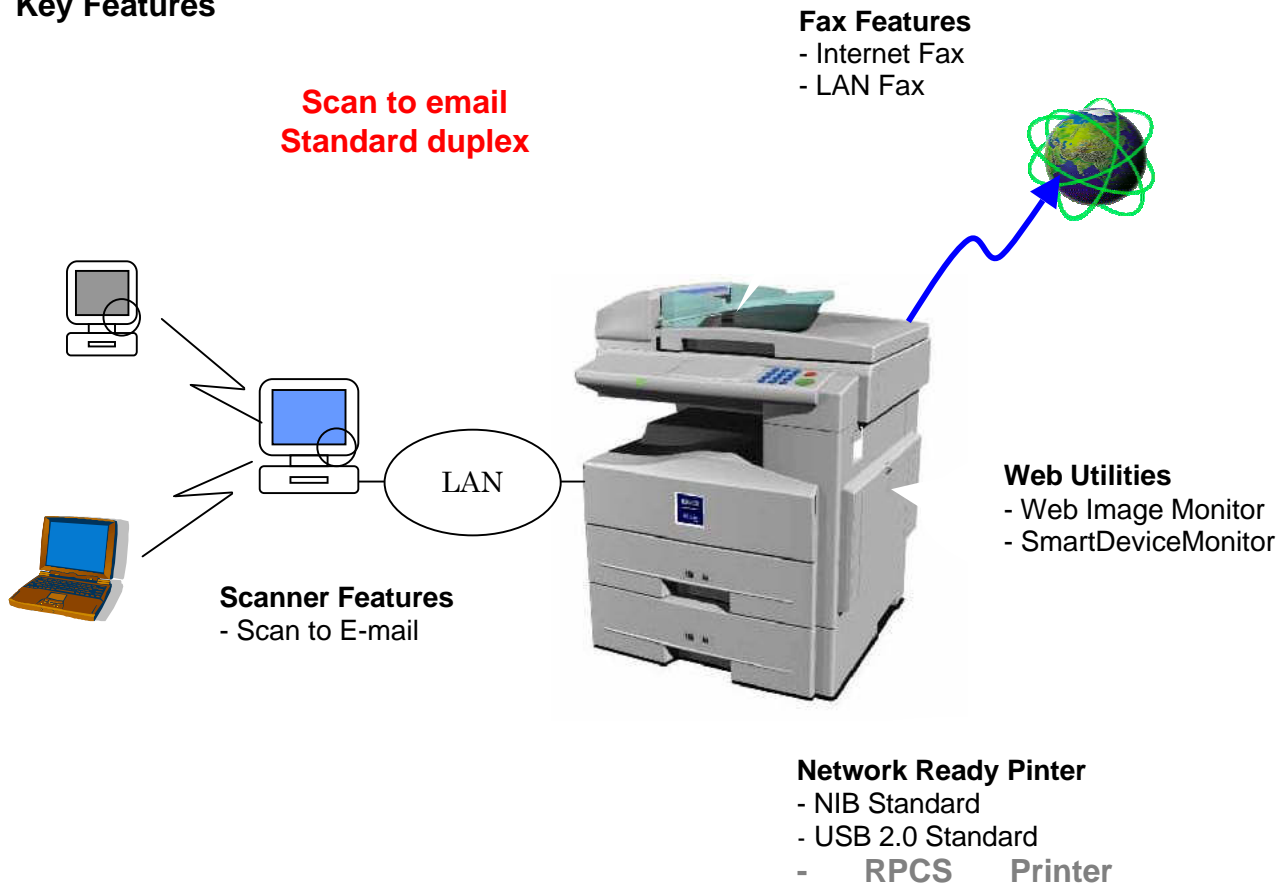
Mid to Large offices as a business personal machine

All-in-one (copier, fax, printer and scanner) multi-function product to be used in large offices

Recommended Volumes

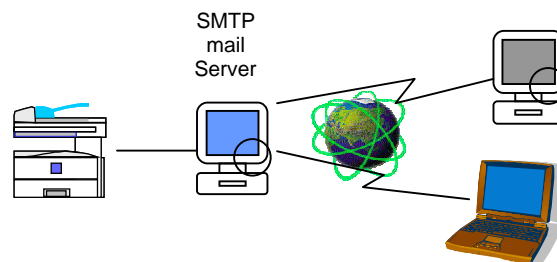
	DSm415	1302/1305/1308/ + 1302f/1305f/1308f	Remarks
Unit life	Approx. 300K or 5 years which ever comes first	Approx. 300K or 5 years which ever comes first	
ACV	2K outputs/ month	2K outputs/ month	Copy, fax, print total outputs
Max CV	5K outputs/ month	5K outputs/ month	
Duty	15K	15K	

Key Features



Scan to E-mail

Available with the Printer/Scanner option and a great advantage for small office users and work group users. Scanned documents are directly delivered to PCs through the Internet.



Easy Installation; Delivery server and designated software for Scan to E-mail are not required. **Easy Operation;** Operation of Scan to E-mail is almost same as that of fax function. **Cost Saving;** Customer can save transmission cost by sending data over Internet.

Contents of E-mail

Attention	To (Max 150 addresses)
Sender's Name	Key operator's E-mail address or selectable form address book
Subject	Customer can select and/or enter "subject" using hard keyboard on operation panel. (Max 64 characters)
Body Message	Fixed message is attached to the e-mail. Message language is selectable by user. The following message is attached: -Greeting: "This E-mail was sent from xxxx (host name, machine model name)" -Scan date: -Queries to: Key operator's E-mail address
Scanned Data	Attached file (Name of scanned data is named automatically by machine.)

Varied Menu of Scan Mode

Scan Mode	
Text	For text original
OCR*	For OCR purpose
Text / Photo	For original containing text and photo
Photo	For photo original

*OCR for scan mode does not mean OCR scanning. OCR mode creates the data that is best match to OCR scanning.

Resolution:

100dpi / 200dpi / 300dpi / 400dpi / 600dpi

Return receipt mode

Return receipt is available with Scan to E-mail.

File Format:

Single Page TIFF/ Multi page TIFF/ PDF

Network TWAIN

A network TWAIN driver is available with the Printer/Scanner option.

Interface:

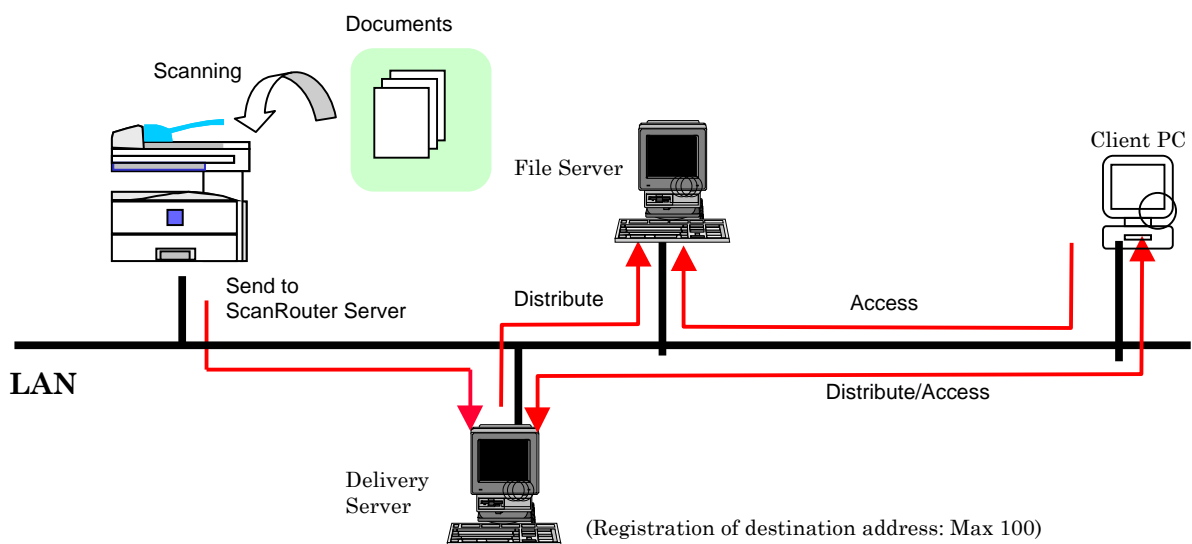
Standard: Ethernet 10/100BaseTX

Option: Wireless LAN interface (IEEE802.11b), IEEE1394/IP over

ScanRouter V2 Lite and DeskTopBinder V2 Lite

In addition to Scan to E-mail, ScanRouter and DeskTopBinder are standard with the Printer/Scanner option allowing users in the network environment to distribute scanned images to the client PC in the network. With the Network Scanner the new DSm415 becomes a highly productive black & white scanner.

- Client PC can receive documents automatically or manually by using DeskTopBinder.
- Client PC can view and copy documents from the In-Tray by using DeskTopBinder.
- Documents sent are saved to the specified Windows folder(s) via delivery server.



ScanRouter V2 Lite and DeskTopBinder V2 Lite are on the CD-ROM provided with the Printer/Scanner option. ScanRouter V2 Professional and DeskTopBinder V2 Professional are optional.

Productivity

Less warm up time and first copy speed

	DSm415 (Basic)	DSm415 (MFP*)	1302/1305/1308/f
Warm-up Time (sec.)	15	30	20
Recovery Time (sec.)	10	10	20
First Copy Speed (sec.)	7.5	7.5	8

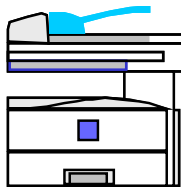
*MFP: with full external options.

Warm-up time: The time it takes for the machine to reach operating temperature from the status of main-switch off.

Recovery time: The time it takes for the machine to reach operating temperature from Sleep mode (Auto off mode).

Standard Duplex

Duplex Print capability enhances not only copying features but also printer features.



**Standard
Duplex**

Duplex productivity

Product Name	DSm415
Duplex Productivity versus simplex (approx)	60%

Fax Features

High Speed

- Modem speed: 33.6Kbps
- Transmission speed: 2 sec (with JBIG)

Address Book

- Speed Dial: Max. 150
- Quick Dial: Max. 16
- Group Dial: Max. 10

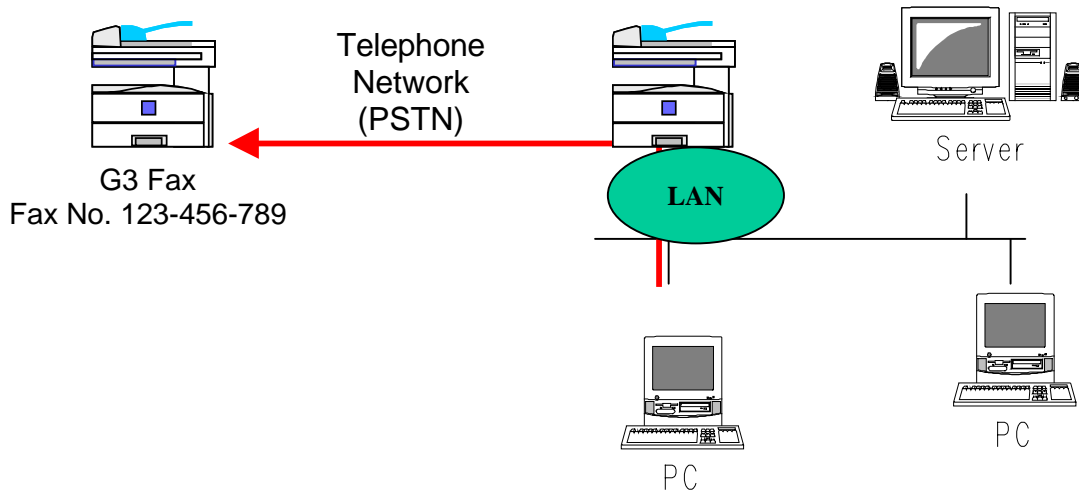
Users can register 150 of speed dials whereas the 1302/1305/1308/f had 50 speed dials. Both Fax number and E-mail addresses can be registered in the same dial key which are managed in the common address book and easily registered/changed/deleted through Web. You can assign a maximum of 16 Speed dial numbers to Quick dial. Quick dials can also be shared by Fax and E-mail.

Other Convenient Features

- Serial Broadcasting of Fax and E-mail.
- SAF memory storage (ITU-T No.1 chart): 160 sheets

LAN-Fax

With LAN Fax you can send documents created on your PC directly to another Fax or MFP. To send a fax from your PC just select Print then select LAN-Fax as the printer and enter the fax number. *LAN Fax is provided with the Printer/Scanner option. Printer/Scanner option is required as well as Fax option.*

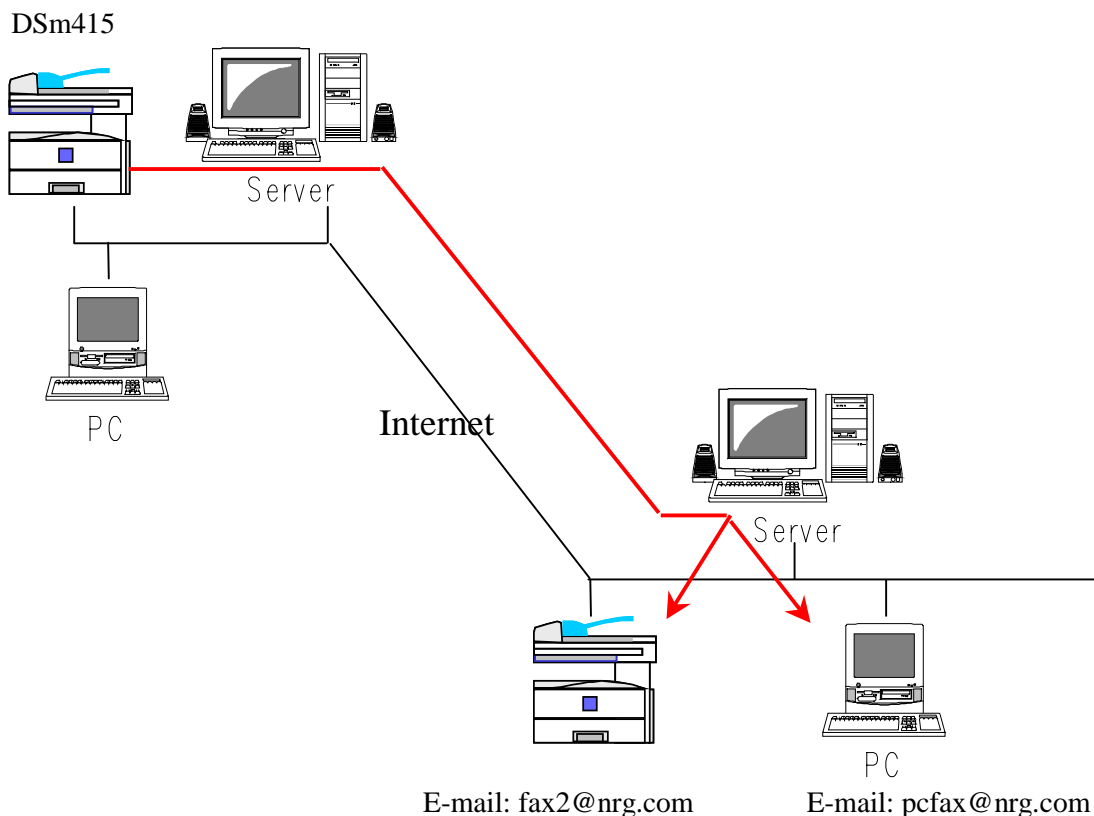


LAN-Fax eliminates the need for printing faxes saving on paper and printing. LAN-Fax also eliminates the need to carry a printed document to the fax machine.

Internet Fax

Internet fax converts scanned document images to e-mail format and transmits the data over the Internet. E-mail can be received by another Internet Fax or a PC. Instead of entering the telephone number of the destination you wish to send to you input the relevant E-mail address.

Compliance with "ITU-T T. 37. Full Mode" you are able to receive the delivery confirmation from the receiving fax. The delivery confirmation has the spec of the fax such as paper size, resolution, and compression method. This data will be automatically registered in the address book and will be used next time the fax is sent.



Faxing via the Internet has become a very important communication means in the world of fax enabling users to send hardcopy fax documents over the Internet. Customers are also able to forward a received fax document to their PC.

For Internet Fax, both Printer/Scanner option and fax option are required.

Printer Features

The new DSm415 printer option offers high performance GW functionality. It has standard network and USB 2.0 interface providing simple network printing capability. There is also a wide variation of optional interfaces in line with faster MFP's in our range.

- Standard Ethernet interface
- Standard USB 2.0 interface
- Optional wireless LAN interface
- Optional IEEE1394
- Optional IEEE1284
- Optional Bluetooth interface

1302/1305/1308/f versus DSm415

	DSm415	1302/1305/1308/f
Print Speed (A4/LT LEF)	All model: 15ppm (tentative)	13 ppm
Supported Printer language	Standard: RPCS, PCL6, PCL5e Option: Adobe PostScript 3	Standard: PCL6, PCL5e Option: PostScript 2 Clone
Network Interface	Standard: Ethernet (100 Base-TX /10 Base-T)	Option: Ethernet (100 Base-TX /10 Base-T)
USB2.0 I/F	Standard	Not available
Wireless LAN I/F	Option	Not available
IEEE 1394 I/F	Option: 2 ports (6 pin) [SCSI print and IP over 1394]	Not available
Parallel I/F	Option	Standard
Bluetooth	Option	Not available
Network protocol	TCP/IP, IPX/SPX, SMB (NetBEUI, NetBIOS over TCPIP) Apple Talk (Auto Switching)	TCP/IP, IPX, Apple Talk (Auto Switching)
Controller CPU	TMPR4955B-300 240MHz	Destiny ASIC D8401A 75MHz
Memory capacity	192 MB (Resident 64 MB, additional 128 MB) Additional 128 MB memory is pre-installed to the Printer/Scanner. (128MB memory is standard on CPS model, CFPS model, Printer/Scanner option)	Standard: 16 MB Option: 32, 64, 128 MB (Max. 144 MB)
Fonts	PCL: 35 intelli fonts, 10 true type fonts, 1 bitmap PS3: 136 Adobe Type 1 fonts	PCL: 35 intellifonts, 10 true type fonts, PS2: 80 PS fonts
HDD	Not available	Not available

Versatile Network Connectivity

The new DSm415 is equipped with standard Ethernet (100 Base-TX/10 Base-T) and USB 2.0 interface providing easy connection in a customer's network environment. In addition the following interfaces are available as options:

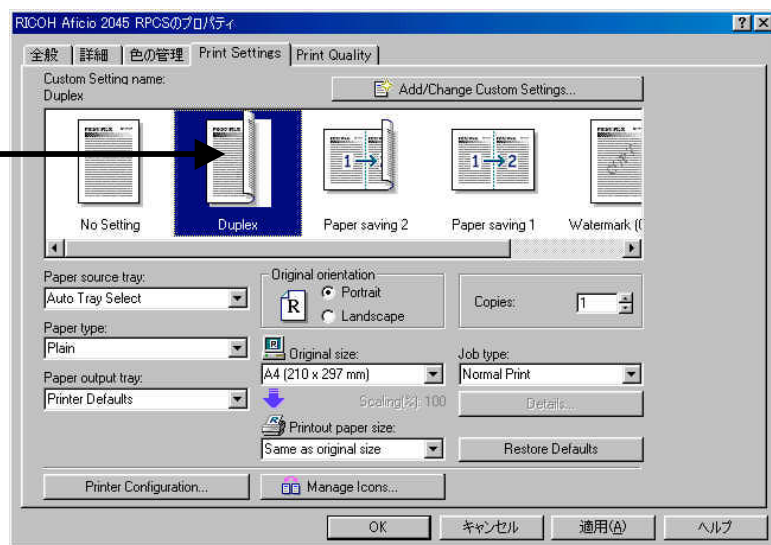
- Wireless LAN (IEEE802.11b)
- IEEE1394 (SCSI and IP over 1394)
- Bluetooth
- Parallel

Note: Wireless LAN and the standard Ethernet interface cannot be used at the same time.

RPCS driver

Simple and straightforward to use, RPCS drivers allow users to select sometimes complicated settings easily.

Customer clicks one of the icons in this area. Only with this operation, customer can set any kinds of print settings.



Web Image Monitor

Web Image Monitor is a web-based utility that enables users to monitor machine status, job log, change network settings and manage address book from PC in the network.

Note: Web Image Monitor is available with Printer/Scanner option.

System requirements

For Windows environment: Microsoft Internet Explorer Version: 5.5 or later

Netscape Navigator: 6.2 or later

For Macintosh environment: Netscape 6.2 or later

Functions of Administrator Mode/User Mode

Functions differ between Administrator mode and User mode.

				Administrator Mode	User Mode	
Status	Input Tray			Yes	Yes	
	Output Tray			Yes	Yes	
	Toner			Yes	Yes	
	Function			Yes	Yes	
	System			Yes	Yes	
	Printer Language			Yes	Yes	
Job	Printer	Job History		Yes	Yes	
		Error Log		Yes	Yes	
	Fax History	Transmission		Yes	Yes	
		Reception		Yes	Yes	
		LAN-Fax		Yes	Yes	
Address Book			Yes	No		
Configuration	Paper			Yes	No	
	System			Yes	No	
	Fax	General			Yes	Yes
		Key Operator Tools			Yes	No
		Parameter Settings			Yes	No
	Printer			Yes	Yes	
	E-mail			Yes	Yes	
	Interface			Yes	Yes	
	Network	Protocol	Protocol	Protocol	Yes	Yes
				TCP/IP	Yes	Yes
				NetWare	Yes	Yes
				AppleTalk	Yes	Yes
				SMB	Yes	Yes
				SNMP	Yes	No
		System Log		Yes	Yes	
	Web page			Yes	Yes	
	Security	Password			Yes	No
Access Control				Yes	No	
IPP Authentication				Yes	No	

SmartDeviceMonitor

Equipped with SmartNetMonitor users are able to monitor the status of copier, fax and scanner. (1302/1305/1308/f could monitor only printer status). The following features are available by using SmartNetMonitor;

SmartDeviceMonitor for Admin

- Monitoring network device status.
- Access control by user code management
- Counting by user code management
- (The data can be exported into CSV files for simple account management.)
- Checking device information
- (Tray, toner, option, system, printer language, network I/F, etc)
- Import and export the address book in CSV file format. With this function, user can;
- Easily register the large number of address in the S-C2 address book at one time
- Backup the data, or transfer the data to other mail system.

SmartDeviceMonitor for Client

- Monitoring the device status
- Job end notification
- Recovery printing
- Checking device information

Full details of SmartNetMonitor are provided in SmartNetMonitor Product Information Guide

Function availability list for each application

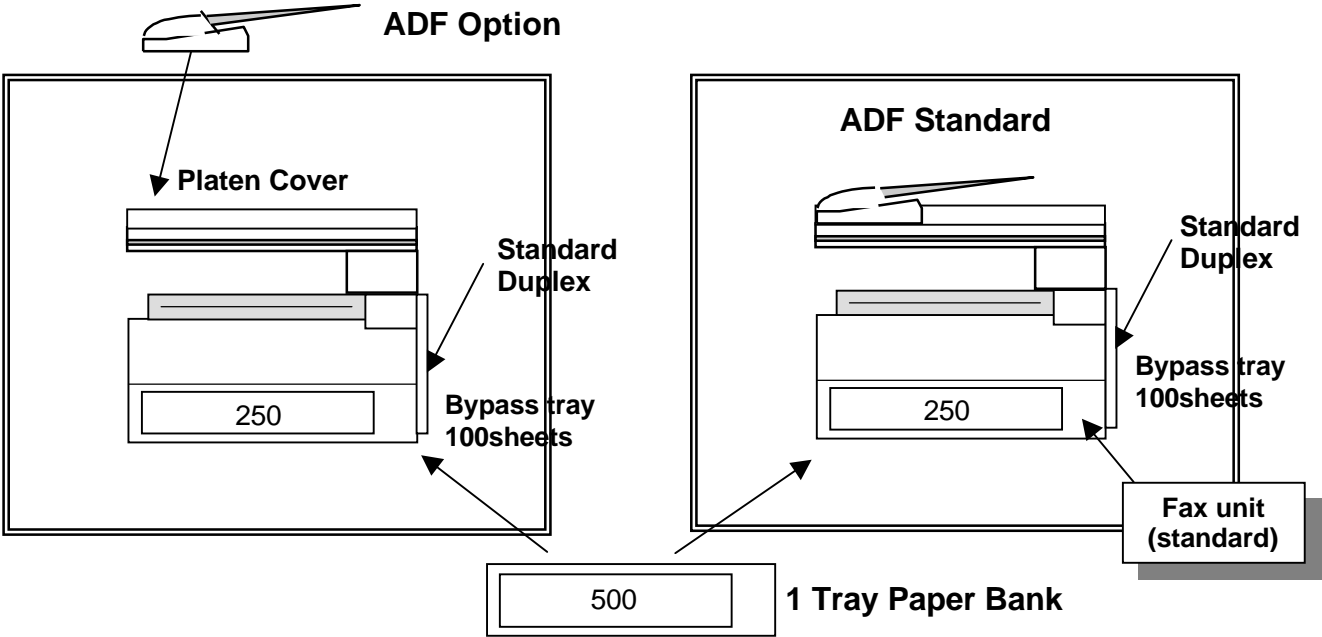
Function		Web Image Monitor	SmartDevice Monitor	Operation panel
Address book (Scan E-mail)	Add	YES	Yes	Yes
	Change	YES	Yes	Yes
	Delete	YES	Yes	Yes
	Print	NO	Yes	Yes
Machine status	View	YES	Yes	Yes
Job log	View	YES	Yes	Yes
System set up		YES*	NO	Yes
Network setting	View	YES	Yes	Yes
	Change	YES	Yes	Yes
User Code Management		YES	Yes	Yes

*System settings, you can do from the Web Image Monitor are limited

Configuration and options

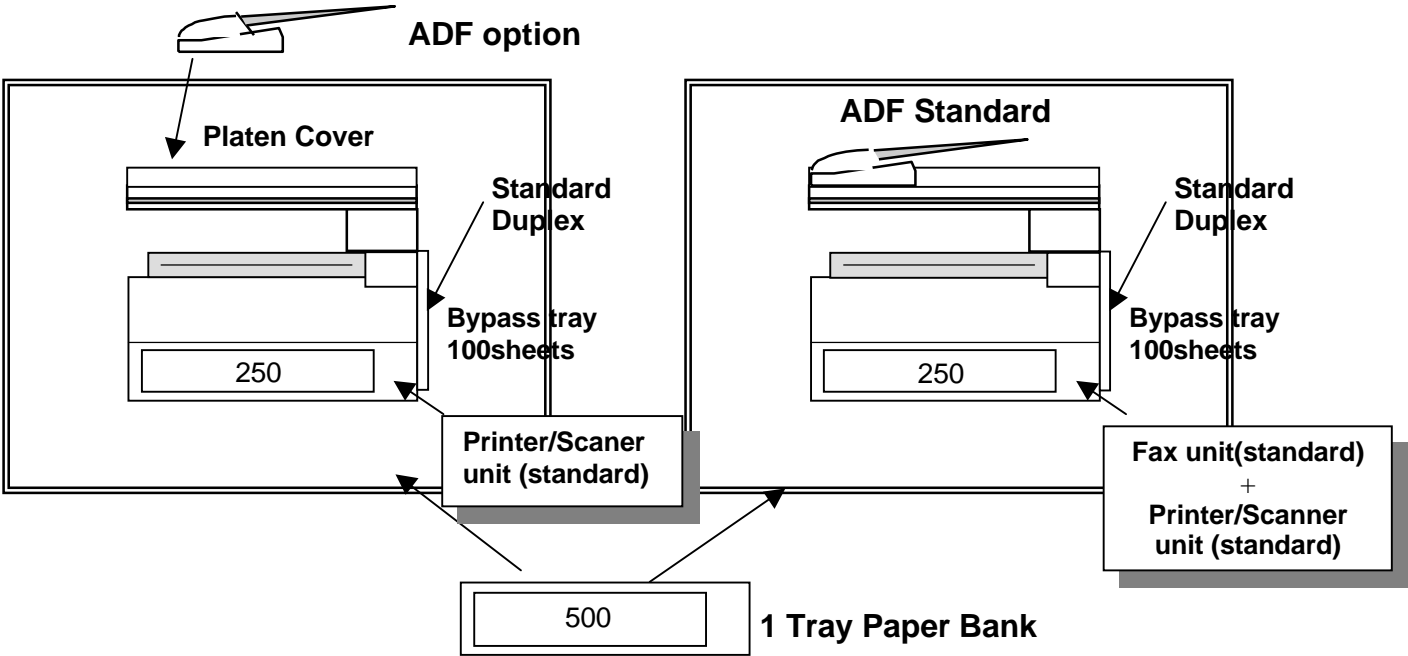
DSm415

DSm415f



DSm415p

DSm415pf



Internal Options

Printer/Scanner:

- Printer/Scanner option
- PostScript3
- IEEE 802.11b (Wireless LAN I/F)
- IEEE 1284 I/F
- IEEE 1394 I/F
- Bluetooth

Option/Supply Interchangeability

New Options:

Can be installed : O

Can not be installed : NG

Item	DSm415	1302/5/8/f
ADF	O	NG
Printer/Scanner option	O	NG

Option compatibility

Paper Bank (500 sheets x 1)	Used in common with 1302/1305/1308/f
PostScript3	Used in common with DSm615/618/618d
IEEE 802.11b (Wireless LAN)*1	Used in common with DSm615/618/618d
IEEE1284 *2	Used in common with DSm615/618/618d
IEEE1394 *1	Used in common with 90/105
Bluetooth *1	Used in common with DSc332/338

*1 Only one of these option can be installed to the option slot in the controller board. Wireless LAN and IP over 1394 (IEEE 1394) features cannot be used with the standard Ethernet interface at the same time.

*2 Need to take out the USB2.0 interface to install IEEE1284.

Option correlation:

DSm415

○ must be installed together ● cannot be installed together

	ADF	Paper Bank (500 sheets x 1)
ADF	●	
Paper Bank (500 sheets x 1)		●

Memory configuration

For DSm415 basic copier memory is standard. There is no optional memory.

Resident: 16MB

DSm415f (Fax model)

64MB memory is necessary for Fax model and is standard with Fax option. There is no need to add additional memory.

Resident: 64MB

DSmpf (Printer, scanner, and fax)

128MB additional memory is necessary for Printer/Scanner feature and is standard in Printer/Scanner model/option. There is no other optional memory.

Resident: 64MB

Memory DIMM for Printer/Scanner: 128MB

Total: 192MB

Main Unit Specification

(SEF: short-edge feed, LEF: long-edge feed)

Engine

	DSm415	Remarks
1. Technology:		
a) Reading element	Flatbed with CCD array image-sensor	
b) Printing processing	Laser beam scanning/marketing & electro-photographic printing. Dry, dual component toner development	
2. Dimensions (WxDxH):		
a) Standard configuration	W468 x D450 x H371 mm (18.43" x 17.72"x 14.61")	
b) With ADF	Height: Approx. 466 mm	
3. Weight:	DSm415 :20kg or less (44.09 lbs.) With ADF: 22kg or less (48.50 lbs.) DSm415p : 23kg or less (50.71 lbs) DSm415f : 25kg or less (56.16 lbs) DSm415pf : 25kg or less (56.16 lbs)	
4. Input Capacity:		
a) Standard	250 sheets tray x 1 100 sheets multi bypass tray*	*Bypass tray and duplex unit do not work together.
b) Options	Paper Bank: 500 sheets x 1	Max total capacity: 850 sheets
5. Output Capacity:	250 sheets (internal tray)	
6. Paper size / weight:		
a) Size:	Standard Tray: A5 (LEF), A4 (SEF), 5 1/2" x 8 1/2" (LEF), 8 1/2" x 11"(SEF)	
	Bypass Tray: A6 (SEF) – A4 (SEF), 5 1/2"x 8 1/2" - 8 1/2"x 14"(SEF) Irregular size: 90 - 216 x 139 - 600 mm 3.54" - 8.5" x 5.48" – 23.62"	
	Duplex: A4 (SEF) 8 1/2" x 11"(SEF), 8 1/2"x 14"(SEF)	
b) Weight:	Standard Tray: 60 to 90 g/m ² (16 - 24 lbs.) Bypass Tray: 60 to 157 g/m ² (16 - 42 lbs.) Duplex Unit: 60 to 90 g/m ² (16 - 24 lbs.)	
7. Rating power spec:	100V model: 120V, 60 Hz 200V model: 220-240V, 50/60Hz	
8. Power consumption:	Full system: Less than 1KW	

General Copier Features

	DSm415	Remarks
Original Size 1st copy speed	Max A4 / 8 1/2" x 11" (8 1/2"x 14" with ADF) 7.5 seconds or less	When polygon mirror motor is spinning. A4/ 8 1/2" x 11" (SEF) from the standard tray, no R/E
Multi copy speed	15cpm (One to one copying) 15cpm (Continuous copying) 9cpm (Duplex, Continuous copying)	A4 / 8 1/2" x 11" (SEF), no R/E
Multiple copy	Up to 99	
Resolution	600 dpi	
Gray Scale (per dot)	Scanning: 256 levels, Marking: Binary	
Recovery time	<u>Basic model</u> 15 seconds or less (from main switch off) 10 seconds or less (from auto off mode) <u>CF, CPS, CFPS model</u> 30 seconds or less (from main switch off) 10 seconds or less (from auto off mode)	20 degrees C
Memory Capacity	Basic model: 16MB CF model: 64MB CPS, CFPS model: 192 MB	
Enlargement	US model: 129, 155 % European/Asian/Pacific model: 141, 200%	2E
Reduction	US model: 93, 78, 65% European/Asian/Pacific model: 93, 71, 50%	3R
Zoom	50% to 200% in 1% step	
Image density adjustment	Manual or automatic	
Interrupt copy	Not available	
Electronic counter	Mechanical counter and Electric counter	
User code	Standard (50 codes, eight digits)	
Display language	<u>220-240V</u> English	

Enhanced Features

	DSm415
APS / AMS	No
Auto tray switch	Option (Available with optional paper bank)
Directional magnification	No
Directional size magnification	No
Photo mode	Standard (photo mode)
Auto start	Standard
User program	No
Duplex	Standard *2 sided scanning is not available because ARDF is not available
Electronic sort	Standard *Rotate sorting is not available.
Scan once copy many	Standard
Image rotation	No
Series copy	No
Combine copy	Standard (2 in 1 simplex/duplex)

Fax Features

General

	DSm415	Remarks
Circuit	PSTN, PBX	
Compatibility	ITU-T (CCITT) G3	
Resolution	200x100dpi, 200x200 dpi, 200x400dpi 8 x 3.85 l/mm,, 8x7.7 l/mm, 8x15.4 l/mm	
Compression method	MH, MR, MMR, JBIG	
Scanning speed	Less than 2 seconds (200x200, A4/ 8 1/2"x11" SEF)	
Number of Pages Scanned	TBA	
Modem speed	Standard with Automatic fallback: 336000, 31200, 28800, 24000, 26400, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400 bps	
Transmission speed	G3: Approx.3 seconds (200x100dpi, ITUT #1 chart, TTI off, memory transmission) G3: Approx.2 seconds (200/100dpi, with JBIG, TTI off, memory transmission)	
SAF memory	Standard: 2 MB No SAF memory option available.	
Page memory	3 MB No page memory option available.	
Memory backup	One hour	
Super smoothing	Standard (Binary)	
Stamp	No	
TTI/RTI	Standard	
CSI	Standard	
Quick dial	Standard (16 numbers)	Quick dial can be assigned 16 out of 150 Speed dial.
Speed dial	Standard (150 numbers)	
Group dial	Standard (10 groups, Max. 100 numbers per group)	
Keystroke program	No	
Redial	Standard	
AI short protocol	Standard	
Direct fax number entry	Standard	
Dual access	Standard	
User Code	Standard (8 digits, 50 Personal Codes)	
Label insertion	Standard	
Auto document	No	
Telephone directory	Standard	
Page count	Standard	
Auto reduction	No	
Wild cards	Standard	
Summer time (day light saving time)	Standard	
ID code programming	Standard (4 digits, only for Memory Lock)	
Programming by OMR	No	
User function key	Standard (3 keys)	
Night timer	No	

Energy saver	Standard	
LCD prompt	Standard	
Remaining memory indication	Standard	
Time indicator /clock adjustment	No / Standard	
User parameter setting	Standard	
User data transfer	Standard	
Memory file transfer	Standard	
Internet FAX	Option (T.37, Full mode)	Printer/ Scanner option required
LAN FAX	Option	Printer/ Scanner option required
Local Storage	No	

Transmission features

	DSm415	Remarks
Immediate transmission	Standard	
Memory transmission	Standard	Max. files: 200 Max. attention: 300
Serial broadcasting (later)	Standard (Max. 300 numbers)	
Send later	Standard	
Error correction mode	Standard	
Page retransmission	Standard	
Economy transmission	No	
Forwarding	Standard	
Batch transmission	Standard	
Parallel memory transmission	Standard (Automatically selected.)	
Image rotation	No	
Book fax	No	Book fax = split two facing pages of the book original into two separate pages and send each of the separate page.
Transmission deadline	No	
Closed network (transmission)	No	
Confidential transmission/with ID	No	
Transfer request	No	
Transfer transmission	No	
Multi-step Transfer	No	
Polling transmission	No	
Double sided transmission	No	
Transmission reserve	No	
Well log transmission	Standard (Max. 600mm)	

Reception features

	DSm415
Automatic reception	Standard
Manual reception	Standard
Substitute reception	Yes
Authorized reception	Standard
Multicopy	No
Reverse order printing	No
Memory lock	Yes
Confidential reception	No
Special reception numbers	Yes
Closed network	No
Polling reception	No
Poll later	No
Polling from memory	No
Multi-polling reception	No
Continuous polling	No
Reception time printing	Standard
Center mark	Standard
Checkered mark	Standard
2 in 1 (two in one)	Standard
Image rotation	No
Image reduction	No
Economy printing mode	No
Duplex reception	No

Telephone features

	DSm415
Telephone connection	Standard
Monitor speaker	Standard
Automatic voice message	No
Voice request	No
On hook dial	Standard
Tone transmission	Standard
Pause	Standard
Pulse/tone selection	Standard (Manual)
Chain dialing	Standard
Reception mode selection	Standard
Automatic fax/phone change	Standard
Reception mode switch over (remote)	No
Answering machine interface	No
Reception mode switching timer	No
Auto answer delay time	No
Busy tone detection	Standard
Silent ringing detection (1300hz/16hz)	No

LAN-Fax Basic Specifications

Requirement	Fax and Printer/Scanner
Paper Size	A4
Resolution	Detail (200 x 200 dpi) *default Standard (200 x 100 dpi)
Gray Scale	Off On normal *default On lighter
Number of Address	300
OS	Windows 95/98/ Me/XP, Windows NT4.0/2000/2003
LAN-Fax Editor support language	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Norwegian, 9.Danish, 10.Finnish, 11.Hungarian, 12.Czech, 13.Polish, 14.Portuguese, 15.Russian, 16.Simplified Chinese, Condition: OS need to have the same language
Interface	Ethernet (100BASE-TX/10BASE-T) Parallel Port IEEE1284 Wireless LAN Interface (IEEE802.11b) IEEE1394
Protocol	G3
TTI	TTI
Compression Method	MMR
Send Later	Yes
Image Rotation	Yes
Internet Fax	Yes
Local Storage	No
Destination	Max. 300
MIB	Yes
Transfer Request	No

Internet Fax (T.37 Full mode) Basic Specification

Requirement	Fax and Printer/Scanner
Interface	Ethernet (100BASE-TX/10BASE-T) Parallel Port IEEE1284 Wireless LAN Interface (IEEE802.11b) IEEE1394
Paper Size	Max A4 / 8 1/2" x 11" using the exposure glass Max 8 1/2" x 14" with ADF
Resolution	Simple Mode: 200x100dpi, 200x200 dpi Full Mode: 200x100dpi, 200x200dpi, 200x400dpi
Compression method	Simple Mode: MH Full Mode: MH, MR, MMR
Scan Mode	Text: for text original Photo: for photo original
Number of Address Storage	Max. 150 (Share address book capacity with e-mail address)
Attention	Max. 300
Destination combination	Internet fax and G3 fax

General Features of Printer Controller

CPU		TMPR4955B-300 240MHz		
RAM	Std.	192MB (Resident 64MB + 128MB additional memory) Note: 128MB additional memory is pre-installed to Printer/Scanner (CPS model, CFPS model, Printer/Scanner option)		
	Option			
Hard Disk Drive	Std.	Not available		
PDL	Std.	RPCS, PCL6, PCL5e		
	Option	Adobe PostScript3		
Continuous Print Speed	Max.	15ppm LT: SEF 600dpi		
Fonts	Std.	PCL: 46 fonts (TrueType: 10 fonts, Intellifont: 35 fonts, 1 bitmap font)		
	Option	PS3: 136 Adobe Type 1 fonts		
Connectivity	Host Interface	Std.	Ethernet (RJ-45: 100BASE-TX/10BASE-T) USB 2.0	
		Option	Wireless LAN Interface (IEEE802.11b) IEEE1394 x 2 port (6 pin) Parallel Port IEEE1284 Bluetooth	
	Network Protocol		TCP/IP, IPX/SPX, SMB (NetBEUI, NetBIOS over TCPIP) *1 AppleTalk (Auto Switching)	
	MIB support	Standard MIB	MIB-II(RFC1213), HostResource(RFC1514), PrinterMib(RFC1759)	
		Private MIB	Ricoh Original	
	Network/Operating Systems		Windows 9x/Me, NT4.0, 2000, XP, Server 2003 Netware 3.12, 3.2, 4.1, 4.11, 5.0, 5.1, 6 Unix: Sun Solaris 2.6 / 7 / 8 / 9 HP-UX 10.X / 11x SCO OpenServer 5.0.6 RedHat Linux6.x / 7.x IBM AIX V4.3/5L V5.1 Mac OS 8.6 - 9.2.X (OS X Classic) Mac OS X Native (V. 10.1 or Later) *2	

(Note)

*1: SmartDeviceMonitor for client is required for NetBeui.

*2: Mac OS X v10.0X is not supported.

Print Resolution	Engine		600x600 (dpi)
	Controller	PCL5e	300x300 (dpi)/ 600x600 (dpi)
		PCL6	600x600 (dpi)
		RPCS	600x600 (dpi)
		PS3 (Option)	300x300 (dpi)/ 600x600 (dpi)
	Drivers	PCL5e	300x300 (dpi)/ 600x600 (dpi)
		PCL6	600x600 (dpi)
		RPCS	300x300 (dpi)/ 600x600 (dpi)
PS3 (Option)		600x600 (dpi)	
Language	Operation Panel		1.English
	Drivers	PCL5e/PCL6	1.English
		RPCS	1.English
		PS3 (Option)	1.English

Controller Options

Option Items		Type	Comments
PostScript3	Installed into PS3 DIMM slot	Type B	Compatibility: DSm615/618/618d
Wireless LAN I/F (IEEE802.11b)	Installed into PCI slot	Type D	Compatibility: DSm615/618/618d
Parallel Port IEEE1284	Installed into PCI slot*	Type A	Compatibility: DSm615/618/618d
IEEE 1394 I/F	Installed into PCI slot	Type B	Compatibility: 90/105
Bluetooth	Installed into PCI slot	Type 2238	Compatibility: DSc332/338

Note *: IEEE1284 Micro Centronics 36 interface is used.
 Converter (either adapter or cable) is required to connect to Centronics connector. Adapter is available as service parts (P/N: G5885140).

Supported Environments

Windows OS

OS	Type	PCL5e	PCL6	RPCS	PostScript3
Windows 9x/Me	-	Y	Y	Y	Y
Windows NT	WorkStation 4.0	Y *1	Y *1	Y *1	Y *2
	Server 4.0	Y *1	Y *1	Y *1	Y *2
	Server 4.0 TSE (*6)	Y *2	Y *2	Y *2	Y *2
	Server 4.0 Enterprise Edition	N	N	N	N
Windows 2000	Professional	Y	Y	Y	Y *3
	Server (*6)	Y	Y	Y	Y *3
	Advanced Server (*6)	Y *4	Y *4	Y *4	Y *3*4
	Datacenter Server	N	N	N	N
Windows XP	Professional	Y	Y	Y *5	Y *3
	Home Edition	Y	Y	Y *5	Y *3
Windows Server 2003	Standard Edition	Y	Y	Y *7	Y
	Enterprise Edition	Y *4	Y *4	Y *4*7	Y *3*4
	Datacenter Edition	N	N	N	N
	Web Edition	N	N	N	N

[Remarks]

*1...Service Pack 4 or later is required.

*2...Service Pack 6 or later is required.

*3...Adobe does not release PS driver for Windows 2000 and XP. Only MS-PostScript driver is available and PPD file for MS-PS is included in the Driver CD.

*4...Cluster Server configuration is not supported.

*5...RPCS driver does not support "Fast User Switching" functions of Windows XP.

*6...See "Point & Print" and "Terminal Service & Citrix MetaFrame"

*7...On System environment with Windows Server 2003, the following printer driver functions have limitations.

RPCS Driver Function	Administrator	User
Custom Settings Icon	A	B
Add/Change Custom Settings	A	B
Manage Icons	A	B
Printer Configuration	A	B
Job Type	N/A	N/A
Overlay	N/A	N/A
Watermarks	A	B
Save/Restore Settings	N/A	N/A
User Settings	A	B
Custom Paper Size	A	B
Chaptering	N/A	N/A

A : Authorized to changing and registering

B : Access to use only

Mac OS

	PostScript3	Printer Utility for MAC
Mac OS 8.6 - 9.2.X (OS X Classic)	Yes	Yes
Mac OS X Native (v. 10.1 or Later) *1	Yes	Yes*2

*1...Mac OS X v.10.0.x is not supported.

*2...Mac OS X v.10.2.0 is not supported

UNIX Filter

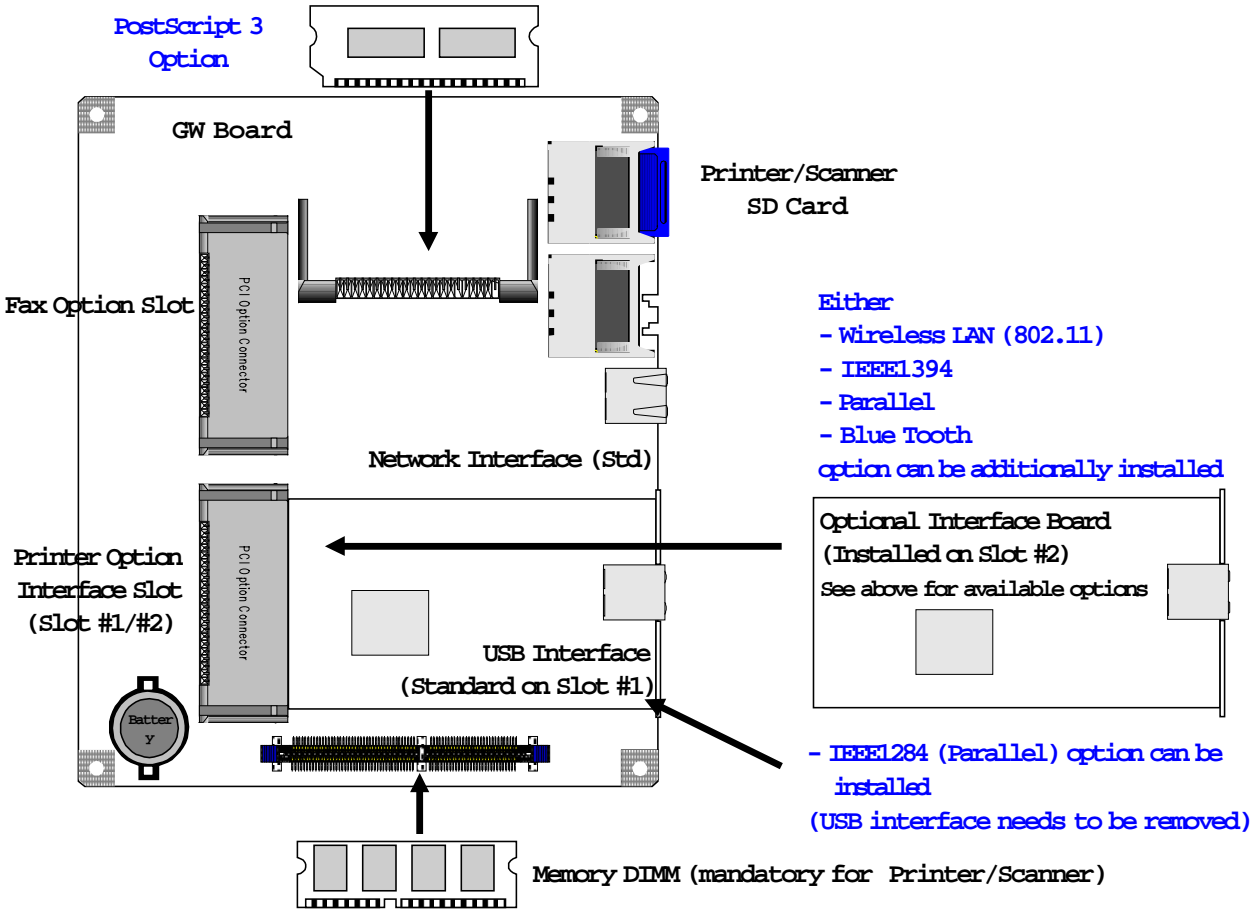
Supported Platforms	(OS)	Unix Platform	Remarks
	Sun Solaris	2.6 / 7 / 8 / 9	
	HP-UX	10.x / 11x	
	RedHat Linux	6.X / 7.x / 8.x	Device option feature is not supported in 6.x.
	SCO OpenServer	5.0.6	
	IBM AIX	V4.3 / 5L V5.1	
	Data Stream	PostScript, PCL (Device option feature not supported), ASCII Text	
	Localization	English only	

Note: Device option feature enables use of optional equipment such as finisher and paper trays.

Novell Netware

Netware Server	Supported Version	Netware 3.12, 3.2, 4.1, 4.11, 5.0, 5.1, 6
	Client OS	Windows 95 /98 /Me, NT4.0 / 2000, XP (Professional)
NDPS Gateway	Supported Version	Netware 5.0(SP5 or Later), 5.1, 6
	Localization	English only

Configuration of Printer and Scanner related items



Printer Interface Correlation:

	Std	Option 1	Option 2	Option 3	Note
PCI Slot No. 1	USB 2.0	IEEE1284	-	-	Take out the USB2.0 interface to install IEEE1284 to Slot No. 1
PCI Slot No. 2	Open slot	Wireless LAN (IEEE802.11b)	IEEE1394	Bluetooth	Either Wireless LAN (IEEE802.11b), IEEE1394 or Bluetooth can be installed to Slot No. 2

USB2.0 Interface (Standard)

This interface provides easy printing connectivity in customer's environment.

Note: USB2.0 can be used only for printing function.

Hardware Specification

Interface	USB2.0/1.1
Data transfer speed	480Mbps (high speed) 12Mbps (full speed) Only USB 2.0 supports "High speed".

System requirement

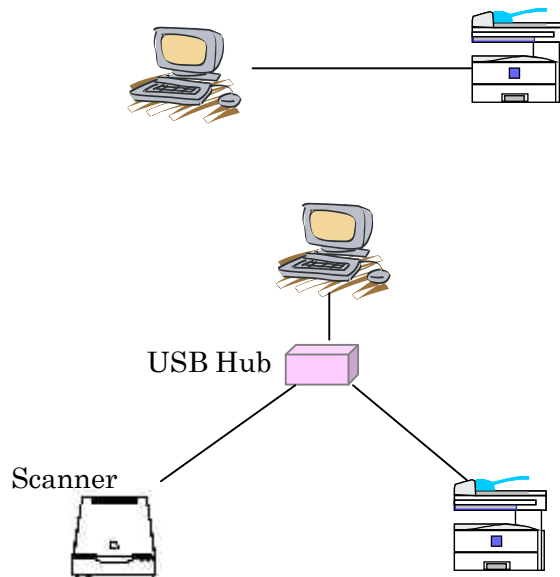
Supported OS	USB1.1 => Windows 98SE/ 2000/ Me/ XP, MAC OS 9.x, 10 classic mode USB2.0*=> Windows XP, 2000, Me *Depends on driver support schedule of Microsoft.
--------------	---

PnP (Plug and Play): When USB cable is connected, OS will automatically recognize the printer and proceed to one of followings.

USB driver is installed: OS automatically set up the printer.

USB driver is not installed: Pop-up menu comes up which recommends to install the driver.

TYPICAL CONNECTION



Wireless LAN Interface (Option) IEEE802.11b

With this interface the DSm415 can be connected to wireless network environment. The optional interface is installed and enables users to communicate to PCs that have wireless interface cards.

Note: Ethernet (100Base-TX/10Base-T) and Wireless LAN cannot be used at the same time. It must be manually selected to use either of them.

Data transmission speed	Auto (11Mbps, 5.5Mbps, 2M bps, 1Mbps) Manually selectable to 11Mbps/ 5.5Mbps/ 2Mbps/ 1Mbps fixed
Protocol	TCP/IP
Frequency	From 2,400 MHz to 2,497MHz
Channel	US model ... 1-11 ch. EU model ... 1-13 ch
Type of connections (*1)	Ad hoc mode, Infrastructure mode
Distance between devices	11 Mbps: 140 m, 5.5 Mbps: 200 m, 2 Mbps: 270 m, 1 Mbps: 400 m The above is the max distance when using in the open air, and these depend on office environment.
WEP (Encryption) Setting (*2)	64 bit (10 digits) /128 bit (26 digits)

(*1) Type of connections

- Ad hoc Mode
- Infrastructure Mode

Please refer to the following for the details.

(*2) WEP: Wired Equivalent Privacy

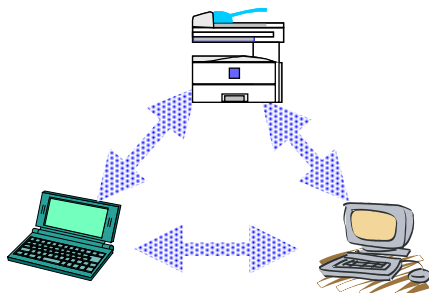
WEP is an encryption method that protects wireless data communication. Both devices that send and receive data through wireless communication need to have the same WEP Key when communicating to the other device.

Type of connections

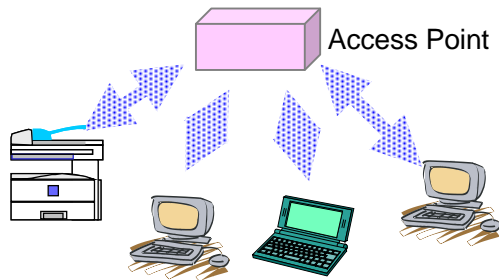
(1) Ad hoc mode communicates between each wireless client

NOTE: Adhoc mode connection does NOT support the communication with Novell NetWare Server because NetWare does not support wireless LAN interface.

NOTE: 2 types of Ad hoc mode are selectable, one is "Ad hoc mode" and the other is "802.11b ad hoc mode". The former mode uses only channel setting and the latter uses channel setting and SSID (SSID stands for Service Set ID, and only the devices, which has same SSID can communicate each other through wireless network.



(2) Infrastructure mode communicates through Access Point device

**Supported application through Wireless LAN Interface**

The Wireless LAN interface provides same functions as NIB's, and can be used for printing and scanning.

IEEE 1394 Interface (Option)

Two function (type of connection) are available, "SCSI print" and "IP over 1394".

	SCSI print	IP over 1394
Available function	Print	Print, Scan
PC OS	Windows 2000 SP1, XP	Windows Me (*), XP
Protocol	SBP-2	TCP/IP
Bi-directional communication	Yes	Yes

(*) When printing with IP over 1394 from a PC (OS: Windows Me), SmartNetMonitor for Client (version 5.0 or later) is necessary.

(1) SCSI print

This function enables customer to connect and utilize the Model S-C2 as a printing device (only from the PC installed Windows 2000 and XP).

Note: This connection type can be used only for printing function.

Hardware Specification

Interface	IEEE 1394
Number of ports	2 ports (6 pin)
Data Transmission speed	400Mbps / 200Mbps / 100Mbps
Bundled cables	1 x 6pin-4pin cable 1 x 6pin-6pin cable Length of cable; 2.0m (78.74inch).

System requirement for SCSI print

Supported OS	MS-Windows2000*, XP *Supported OS - MS-Windows 2000 Professional with Service Pack 1 - MS-Windows 2000 Server with Service Pack 1
Number of Hops	16 hops (Max.)
Length of cable	4.5m between devices (Max.)

(2) IP over 1394

This provides printing and scanning function through IEEE 1394 interface.

Hardware Specification

Interface	IEEE 1394
Number of ports	2 ports (6 pin)
Data Transmission speed	400Mbps / 200Mbps / 100Mbps
Bundled cables	1 x 6pin-4pin cable 1 x 6pin-6pin cable Length of cable; 2.0m (78.74inch).

System requirement for IP over 1394

Supported OS	Windows Me (*), XP
Protocol	TCP/IP
Number of Hops	16 hops (Max.)
Length of cable	4.5m between devices (Max.)

(*) When printing with IP over 1394 from a PC (OS: Windows Me), SmartNetMonitor for Client (version 5.0 or later) is necessary.

Bluetooth Interface (Option)

Bluetooth is a short distance radio communication technology

- Aiming substitution of a cable
- Range of around 10m
- Low consumption electricity
- Low price
- 2.4GHz ISM band used. (same electric wave as a microwave oven and 802.11b [Wireless LAN]).
- Frequency Hopping Spread Spectrum (FHSS) system
- Many of protocols used with infrared communication (IrDA) can also be used with Bluetooth.

System requirement

Supported OS	Win XP, 2000, 98 SE, Me (It will also depend upon the support OS of the Bluetooth Card)
Connectable PCs	- Host PC with PCMCIA card slots "3COM Wireless Bluetooth PC Card 3CRWB6096" or "3COM Wireless Bluetooth USB Adaptor 3CREB96" is required. - Toshiba PC with Bluetooth Software Ver1.02.18 or later

Hardware Specifications

Transmission spec	Based on Bluetooth V1.1
Data Transfer Speed	1Mbps
Profile	Hardcopy Cable Replacement Profile (HCRP), Serial Port Profile (SPP)
Distance between devices	10 m The above is the max distance when using in the open air, and these depend on office environment.

Scanner Features (General)

Optical resolution	600 dpi binary
Scan speed	Scan to E-mail: 22ipm (200dpi binary/SEF/ MH) ScanRouter V2 Lite: 22ipm (200dpi binary/SEF/ MH) TWAIN: 18ipm (200dpi binary/A4 SEF) Note: without compression
Scan area	Main scan: 216mm Sub scan: 356mm (ADF), 297mm (using the exposure glass)
Original size (Exposure glass and ADF)	Default original size: A4 SEF (Europe, Asia/Pacific and China model) 8 1/2"x11" SEF (using the exposure glass: US model), 8 1/2"x14" SEF (ADF: US model) Available to specify original size manually. No auto detection
Compression Method	Binary: MH (Default), MR, MMR
Network Topology	Ethernet 10/100BaseTX Wireless LAN (IEEE802.11b) IEEE 1394/IP over
Protocol	TCP/IP
Max numbers of original stored	100 sheets (A4/ 200dpi/ MH/ 6% chart)
Web Status Monitor	Standard

Scan to E-mail Specification

Requirement	SMTP (Mail Server) Gateway and TCP/IP
Authorization function	SMTP authentication POP 3 authentication POP before SMTP authentication
Global address book access	No
Register E-mail Address	Max. 150
Destination	Max. 150 from address book Manual input: 50 destinations per job
Group Address	Max 10 Group (max 100 users in one group)
Maintain E-mail Address	Operation panel, Web Image Monitor, SmartDeviceMonitor
Attention	To
Search	By name, e-mail address, by registration number
Input Subject	Max 20 Characters via hard key
Body Message	Fixed message is attached to the e-mail. Message language is selectable by user. The following message is attached: -Greeting: "This E-mail was sent from xxxx (host name, machine model name)" -Scan date: -Queries to: Key operator's E-mail address
Max E-mail data size	Adjustable for transmission (from 64KB to TBA) *default 2048KB
File Format	Single Page TIFF, Multi Page TIFF, PDF
Divide and send E-mail	Yes (By page or size)
Batch Transmission	Yes (By page or size)

Note; There is a limitation on the page numbers you can scan and send due to no HDD.

ScanRouter and DeskTopBinder

Resolution	100, 200, 300, 400, 600 dpi binary
Scan mode	Text, Text/Photo, Photo, OCR *
Original size	A4 SEF (Europe, Asia Pacific and China model) 8 1/2"x11" SEF (using the exposure glass: US model), 8 1/2"x14" SEF (ADF: US model)
Image density	Lighter to Darker: 5 degrees
2 sided scan	No
File format	TIFF (MH, MR, MMR) Multi-page TIFF PDF
OS	<Delivery Server for ScanRouter V2 Lite> Windows 95(OSR2 or later), 98/98SE Windows ME Windows NT Server4.0 (SP5 or later) Windows2000Server Windows XP <Client PC for DeskTopBinder V2 Lite> Windows 95(after OSR2), 98/98SE Windows ME Windows NT Workstation 4.0(SP5 or later) Windows NT Server4.0 (SP5 or later) Windows 2000 Professional, Windows 2000 Server Windows XP
Memory	<Delivery Server for ScanRouter V2 Lite> Min 64MB (128MB or more recommended) <Client PC for DeskTopBinder V2 Lite> Min 48MB (64MB or more recommended)
CPU	<Delivery Server for ScanRouter V2 Lite> Pentium 200MHz minimum (Pentium 350MHz minimum recommended) <Client PC for DeskTopBinder V2 Lite> Pentium 133MHz or faster (Pentium 266MHz or faster recommended)
HDD	<Delivery Server for ScanRouter V2 Lite> At least 200MB of disk space are required for installation. In addition, 500MB or more are required. <Client PC for DeskTopBinder V2 Lite> 50MB or more (200MB recommended)
Network	Topology: Ethernet 10/100BaseTX, Wireless LAN (IEEE802.11b), IEEE1394 Protocol: TCP/IP

*OCR for scan mode does not mean OCR scanning. OCR mode creates the data that is best match to OCR scanning.

Network Twain Driver

Original size	Max A4 / 8 1/2"x11" (8 1/2"x14" with ADF)
Resolution	Scanner: 600dpi Driver: Binary –600dpi
OS	Win98/ME, WinNT4.0, 2000, Win XP
Memory	Minimum required memory for OS + 8MB
CPU	Pentium 75MHz or more, or minimum required CPU for OS
HDD	More than 100MB of disk space is required.
Network	Protocol: TCP/IP, UDP/IP, ICMP/IP
Duplex scanning	No
Skew correction	Yes
Image Rotation	Yes

Auto Document Feeder

Original size:	A4 - A5, LG - HLT
Original weight:	52 - 105 g/m ² , 14 - 28 lbs.
Stack capacity:	30 sheets (80 g/m ² , 20 lbs.)
Power consumption:	50w or less
Dimensions (W x D x H):	110 x 360 x 95 mm, 4.3" x 14.2" x 3.74
Weight:	2kg (4.41lbs)

Supply Specification

Toner Cartridge
Average : 7K Copies / Cartridge

Note: A4, 6% chart is used to measure the above yield.

Supplies compatibility

Item	DSm415 series	1302/1305/1308/f
Toner bottle	New	Current
PCU	New	Current

Contents of CD-ROM

CD #1 <u>Printer Drivers and Utilities</u>	RPCS printer driver PCL printer driver PostScript printer driver LAN-Fax driver SmartDeviceMonitor for Admin SmartDeviceMonitor for Client FontManger 2000 1394 Utility Printer Utility for Mac
CD #2 <u>Scanner Driver and Document Management Utilities</u>	Twain Driver ScanRouter V2 Lite* DeskTopBinder V2 Lite* Acrobat Reader
CD #3 <u>Operating Instructions for Printer/Scanner</u>	Network Guide Printer Reference 2 Scanner Reference PostScript 3 Supplement

*DeskTopBinder V2 Lite includes "Setup Guide", "Introduction Guide" and "ScanRouter V2 Link Guide".

**ScanRouter V2 Lite includes "Setup Guide" and "Management Guide".

***Scanner Reference includes "Network TWAIN Scanner Reference".

Environmental Specification

Sound Power Level

	Main Unit Only	Complete System
Copying	62dB or less	66dB or less
Stand-by	40dB or less	40dB or less

Ozone Emission Level

0.02 mg/m³ or less

Dust Level

0.075 mg/m³ or less

Styrene Emission Level

Less than 0.07 mg/m³

Identification of Plastic Components

All plastic components which weight more than 25g are identified accordingly as per DIN54840 or ISO11469.

Power Consumption

		Copier only	Fax or Printer/Scanner installed
Low Power Mode	Power Consumption	TBA	TBA
Sleep Mode	Power Consumption	-	10Wh
Auto Off Mode	Power Consumption	1Wh	-

Environmental Regulation

BAM	Energy Star	Swan	Zesm	ASTM
Yes	Yes	No	Yes (Note)	Yes

Note: Zesm regulation is for machines that are over 30ppm. However this model meets requirements in accordance with Zesm.